

In response to the Office Action, please amend  
above-identified application as follows:

IN THE CLAIMS:

Please amend Claims 1-3, 6, 8, 10, 11, 17-19, 22, 24  
and 27 as follows:

B<sup>1</sup>  
1. (TWICE AMENDED) A method [for] of optimising  
an expression tree, said expression tree for compositing an  
image and comprising at least three nodes, each said node of  
said tree being at least either a graphical element or a  
graphical operator [and having a region of the image  
represented by said node], the method comprising, for at least  
one node in said tree, the steps of:

comparing [the] a first region [represented by] of  
said node to a second region [representation data structure  
corresponding to one or more regions represented by any]  
derived from at least one other node anywhere in said  
expression tree;

determining if [the] said first region [represented  
by said node] is totally or partially obscured by said [one or  
more] second region[s]; and

modifying the expression tree in [the] said first  
region [represented by said node] is at least partially or  
totally obscured by said second region, to form an optimised

expression tree in which an optimised part of said expression tree substantially represents unobscured portions of said first region.

B<sup>1</sup>

2. (AMENDED) The method as recited in claim 1, wherein the step of modifying the expression tree includes applying a clipping operator to said node in the event [the] said first region [represented by said node] is partially obscured.

3. (AMENDED) The method as recited in claim 1, wherein the step of modifying the expression tree when said node is totally obscured further includes the steps of:

[if the node is a graphical element,] removing the node; and

if the node [is] has a parent node which has a graphical operator [applying] selecting a node replacement rule from a predetermined set of node replacement rules in accordance with said graphical operator and applying said rule.

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B<sup>2</sup>

6. (AMENDED) The method as recited in claim 1, wherein [the] said second region is represented by a region

B2 representation [is of] in the form of a hierarchical data structure.

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B3 8. (TWICE AMENDED) A method of optimising an expression tree for compositing an image, said expression tree comprising a plurality of nodes, each said node being at least either a graphical element or a graphical operator [and having a region of the image represented by said node], said method comprising the steps of:

traversing the expression tree node by node;

determining at a current node if a first region of the image represented at said current node is obscured by a second region[s represented by any] derived from at least one other node anywhere in said expression tree, and modifying said expression tree in the event that said first region of said [the] current node is partially or totally obscured by said second region, to form an optimised expression tree in which an optimised part of said expression tree substantially represents unobscured portions of said first region.

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B4 10. (AMENDED) The method as recited in claim 7, wherein said modifying further includes clipping, or marking

for clipping at a later time, [the] said first region represented by said current node.

11. (AMENDED) A method of optimising an expression tree for compositing an image, said expression tree comprising a plurality of nodes, each said node comprising:  
at least either a graphical element or a graphical operator and having a region of the image represented by said node, said method comprising the steps of:

traversing the expression tree node by node and at each current node comprising a graphical operator applying the sub-steps of:

(i) receiving a first region representation from a parent node;

(ii) passing to a first operand of said graphical operator a modified first region representation in accordance with a first predetermined modification rule for said operator;

(iii) returning to the graphical operator a second region representation of regions obscured by a sub-tree associated with the first operand;

(iv) passing to a second operand of said graphical operator a modified second region representation in accordance with a second predetermined modification rule for

said operator;

B4 (v) returning to the graphical operator a third region representation of regions obscured by a sub-tree associated with the second operand; and

(vi) determining, in accordance with a set rule for said graphical operator, a final region, representation to be returned to the parent node to form an optimised expression tree in which said final region representation substantially represents an unobscured portion of the first region represented at the parent node.

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B5 17. (TWICE AMENDED) An apparatus for optimising an expression tree, said expression tree for compositing an image and comprising at least three nodes, each said node of said tree being at least either a graphical element or a graphical operator [and having a region of the image represented by said node], the apparatus comprising:

means for, comparing [the] a first region [represented by] of said node to a second region [representation data structure corresponding to one or more regions represented by any] derived from at least one other node anywhere in said expression tree;

means for determining if [the] said first region [represented by said node] is totally or partially obscured by said [one or more] second region[s]; and

means for modifying the expression tree in the event that [the] said first region [represented by said node] is at least partially or totally obscured by said second region, to form an optimized expression tree in which an optimized part of said expression tree substantially represents unobscured portions of said first region.

B<sup>5</sup>

18. (AMENDED) The apparatus as recited in claim 17, wherein the modifying means includes means for applying a clipping operator to said node in the event [the] said first region [represented by said node] is partially obscured.

19. (AMENDED) The apparatus as recited in claim 17, wherein the modifying means comprises:

means for removing the node [if the nodes is a graphical element and the node is totally obscured]; and

means for [applying] select a node replacement rule from a predetermined set of node replacement rules in accordance with said graphical operator and applying said rule

B<sup>5</sup> if the node [is] has a parent node which has a graphical operator and the node is totally obscured.

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B<sup>6</sup> 22. (AMENDED) The apparatus as recited in claim 17, wherein said second region, is represented by [the] a region representation [is of] in the form of a hierarchical to data structure.

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B<sup>7</sup> 24. (TWICE AMENDED) An apparatus for optimizing an expression tree for compositing an image, said expression tree comprising a plurality of nodes each said node being at least either a graphical element or a graphical operator [and having a region of the image represented by said node], said apparatus comprising:

means for traversing the expression tree node by node;

means for determining at a current node if a first region of the image represented at said current node is obscured by a second region[s] [represented by any] derived from at least one other node anywhere in said expression tree; and

means for modifying said expression tree in the event that [the] said first region of said current node is partially

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or totally obscured by said second region to form an optimized expression tree in which an optimized part of said expression tree substantially represents unobsured portions of said first region.

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B<sup>5</sup>  
27. (AMENDED) An apparatus for optimizing an expression tree for compositing an image, said expression tree comprising a plurality of nodes, each said node comprising at least either a graphical element or a graphical operator and having a region of the image represented by said node, said apparatus comprising:

means for traversing the expression tree node by node, said traversing means [...] for each current node comprising a graphical operator, further comprising:

means for receiving a first region representation from a parent node;

means for passing to a first operand of said graphical operator a modified first region representation in accordance with a first predetermined modification rule for said operator;

means for returning to the graphical operator a second region representation of regions obscured by a sub-tree associated with the first operand;